



Army Organization and Doctrine

Purpose: Unit member must possess basic knowledge of Army structure and doctrine to provide quality weather support to operations.





Army Organization and Doctrine

Army Command / Staff

CO - Commander

XO - Executive Officer

S1/ G1 - Personnel / Adminis

S2/ G2 - Intelligence

S3/ G3 - Operations

S4/ G4 - Logistics/ Support

G5 - Civil Affairs (Div & above)

J5 - Plans (Joint)

S6/ G6/ J6 - C 3 Systems (Jt S

J7 - Civil Mil Ops (Jt Staff)

J8 - Force Structure/ Resources/ Financ

**S = Battalion/
Brigade**

R = Regiment

**All units
commanded by a
colonel, or lower,**

**have an S prefix
(ex: S-2)**

**All units
commanded by a
General have an
G prefix (ex: G-
2)**

Staff Weather is aligned under S2/G2 Intel Office



Army Organization and Doctrine

Army Unit Structure

<u>Army Unit</u>	<u>Consists of:</u>	<u>CC</u>	<u>Size</u>	<u>AF</u>
ARMY/EAC 100,000+	2-3 CORPS None	★ ★ ★ ★		
CORPS # AF	2-4 Divisions	★ ★ ★	50,000	
Division	3-5 Brigades	★ ★	12-15,000 Wing	
Brigade/Rgmnt 3,500 Group	3-5 Battalion	★ /Colonel	2,500-	
Battalion/Squadron Colonel 600 Group	3-5 Companies		Lt	
Company/Troop Platoon	3-5 Platoons	Captain	120-150	Flight
	3-5 Squads	Lieutenant	40-60	



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Army Unit Structure

The CORPS is the largest standing tactical unit in

Example of a CORPS: XVII Airborne Corps

XVII Airborne Corps consists of:

Divisions: 10th Mountain, 3rd Infantry (Mech),
82nd Airborne, 101st Airborne Divisions

Brigades: 18th Aviation, 525th MI, 18th MP,
35th Sig, 20th Engineer, 2nd Armored Cav
(Reg), Air Defense Artillery, 18th Field Artillery
Brigades



Army Organization and Doctrine

Army Battlefield

Three Parts of Battlefield: Close, Deep, and Rear Battle

Close Battle: This is the front line. Soldiers engaged in battle.

Deep Battle: Includes the enemy's second echelon forces. Army defines Deep Battle targets via helicopter deep attack, air interdiction, artillery, and psyops.

Rear Battle: Includes the communications zone to allow the commander to focus in on bypassed enemy forces or enemy SOF operating in the rear.



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Battlefield Operating System

The Army fights as a combined arms team, each major function is known as a Battlefield Operating System.

Armor: Fielded with M1A1 Abrams tanks.
Dedicated to armored/mechanized warfare.

Infantry: Four types of Infantry:

Special Forces: Trained in special recon, unconventional warfare, and direct fighting.

Aviation: The US Army has more aircraft than any other service, most are helicopters

Continued



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Battlefield Operating System

The Army Battlefield Operating System (BOS) cont

Field Artillery: Using both self-propelled and towed artillery tubes for close battle support, counter-battery, and deep ops

Engineers: Constructs obstacles and fighting positions; also clears obstacles for mobile ops and builds airfields and roads

Military Police: Provide installation security; traffic control and security along supply routes; also provide POW security

Air Defense Artillery: Defense against air threats including ballistic missiles.

Signal: Provides communication links to all echelons

Support: Provides logistics (Trans, Ordnance, Quartermaster) finance



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Battlefield Operating System

Types of basic Infantry units:

Infantry: Four types of Infantry:

- **Mechanized:** Equipped with M2 Bradley Fighting Vehicle. Dedicated to provide infantry support to Armored warfare.
- **Light:** Equipped with HMMWVs for high mobility; can fight in varied terrain. Light Infantry fight on foot and lack heavy weapons associated with Mechanized units.
- **Airborne:** Light infantry designed for forced entry into denied areas
- **Air Assault:** Light infantry utilizing mobility of the helicopter.



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Battlefield Operating System

Types of Army aviation units:

Aviation: Three types:

- Lift: Utilizes the CH-47 Chinook helicopter and the UH-60 Black Hawk. These aircraft are used for air assault, sling loading of equipment, transportation of personnel and supplies, and command and control.
- Attack: Main attack helicopter is the AH-64D Apache (Longbow) and some AH-1s. Designed for deep attack missions or close air support to the close battle. The OH-58D Kiowa are used as laser scouts and can carry Hellfire missiles (like the AH64D), in an attack role.
- Cavalry: Air Cavalry unit use the OH-58D Kiowa Warrior for reconnaissance and screening; and also for



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Weather Units supporting

**ARMY PACIFIC
COMMAND**
Fort Shafter, HI





Army Organization and Doctrine

Six Principles of Army Weather Support

- **Accuracy of data and information** - May be quantified and presented to decision makers so they may place an appropriate weight and level of confidence in them when making decisions.
- **Timeliness of data and information** - Weather information that could influence an operation or program is worthless when the commander receives it after an opportunity has passed, an irreversible decision has been made, or an operation is complete.
- **Relevance to the operational user** - Weather personnel must tailor the information for specific applications so the user can quickly identify and apply relevant information without additional analysis or manipulation.



Army Organization and Doctrine

Six Principles of Army Weather Support

- **Unity of effort** - All elements comprising this database must be passed up to the OWS and/or weather strategic centers. Within a theater of operations, or for a particular JOA, there must be unity of effort to ensure the weather database is complete and accurate.
- **Readiness** - All Army weather resources must be maintained in a degree of readiness that ensures employment capability commensurate with the unit's mission.
- **Evaluation of effectiveness** - The overall effectiveness of the Army weather support is based on the successful and effective accomplishment of specific military missions. Each weather organization must



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Joint Weather Operations

Theater Communication

- The Army has overall responsibility for the success of weather support to Army operations. The Air Force provides or arranges for all direct and indirect weather services the Army requires (AR 115-10/AFJI 15-157)
- The Air Force is responsible for the part of the architecture that connects weather teams and OWSs to the Army's tactical communications within the theater.
- The highest Army headquarters within the theater accepts the handoff of weather data at the interface point from Air Force communications and retransmits over Army area tactical communications links to lower echelons



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Joint Weather Operations

US Army through subordinate commands, provides:

- Surface observations forward of the division command elements and all upper-air observations to support military operations.
- Critical threshold values for determining the weather effects on weapon systems, tactics, and operations.
- Communications circuits and equipment for passing weather data
- Combat and soldier training skills for AFW personnel
- Technology development to exploit existing and planned



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Joint Weather Operations

ARMY PROPONENTS FOR WEATHER SUPPORT

US Army Intel Center - Training and Doctrine (TRADOC) proponent

- Identifies, validates, and documents weather and environmental data requirements and their critical thresholds that impact Army operations.
- Determines how the data can be integrated, processed, tailored to user specifications, and disseminated to all users on the battlefield.
- Monitors the effectiveness of weather support, identifying any deficiencies and facilitating solutions.
- Represents the Army to outside organizations on all matters regarding weather and environmental support.



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Joint Weather Operations

ARMY PROPONENTS FOR WEATHER SUPPORT

INTELLIGENCE OFFICER (J2, G2, S2)

- The G2/S2 is responsible for staff oversight of the SWO, who is a member of the commander's special staff.
- Determines how the data can be integrated, processed, tailored to user specifications, and disseminated to all users on the battlefield.
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Joint Weather Operations

ARMY PROPONENTS FOR WEATHER SUPPORT

FIELD ARTILLERY METEOROLOGY

- Within an Army command, ARTYMET sections are responsible for measuring surface and upper air meteorological data.
- Atmospheric data obtained by an ARTYMET section is vital for accurate artillery fires and helps develop weather forecasts.
- Message formats are:
 - » Computer meteorological.
 - » Ballistic meteorological.
 - » Fallout prediction meteorological.
 - » Target acquisition meteorological.
 - » World meteorological organization



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Joint Weather Operations

ARMY PROPONENTS FOR WEATHER SUPPORT

ARMY ENGINEERS

- The mission of the topographic engineer terrain analysis detachment is to interpret the natural and manmade features of a geographic area.
- Some terrain analysis products that require weather data and information include—
 - » Mobility and visibility overlays.
 - » River stage and flood forecasting.
 - » Tactical dam analysis.
 - » Special terrain and geography studies.



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Joint Weather Operations

AF WEATHER SUPPORT TO THE ARMY COMBAT MISSION

Joint Reg AR 115-10/AFJI 15-157 stipulates AF weather will provide weather support for :

- » Theater Army, corps, divisions, separate brigades, aviation brigades, ACRs, ranger regiments, aviation battalions, and Special Forces according to jointly agreed doctrine and operational support concepts.
- » Lower echelons, as required by the theater commander.
- » Support operations or other unique situations where the use of standard doctrinal support is not appropriate.



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Joint Weather Operations

AF WEATHER SUPPORT TO THE ARMY COMBAT MISSION

AF weather will provide:

- » weather training for Army ATC personnel assigned to take limited surface weather observations.
- » weather warnings and advisories of expected weather that may adversely affect operations or harm personnel.
- » weather data used by Army engineers to determine trafficability and hydrological conditions (we don't do soil types).
- » weather effects on weapon systems, tactics, and operations
- » climatological support for tactical missions, IPB, TDA modeling, and simulation.



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Joint Weather Operations

AF WEATHER SUPPORT TO THE ARMY COMBAT MISSION

The Staff Weather Officer (SWO) function

- The SWO is the senior weather officer, or noncommissioned officer, when no officers are assigned
- The SWO is a member of the Army commander's special staff and is under the general staff supervision of the G2/S2.
- The Army commander has operational control (OPCON) of the SWO.
- The SWO manages the operations of both the CWT when deployed in a contingency or exercise and the weather detachment, flight, or weather squadron in peacetime.



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Joint Weather Operations

AF WEATHER SUPPORT TO THE ARMY COMBAT MISSION

The Staff Weather Officer (SWO) function:

- Advises the Army commander on AFW capabilities, support limitations, and the ways weather information can enhance combat operations.
- Prepares inputs for weather annexes to plans of the supported command.
- Ensures weather communications requirements are documented.
- Coordinates communications support for passing weather data.



Army Organization and Doctrine

Joint Weather Operations

AF WEATHER SUPPORT TO THE ARMY COMBAT MISSION

The Staff Weather Officer (SWO) function (*continued*)

- Works with the G2/S2 to ensure forward area observations and ARTYMET upper-air observations are passed to the CWT
- Provides weather products for the Intelligence Preparation of the Battlefield (IPB) (see FM 34-130).
- Ensures weather communications requirements are documented.
- Provides weather briefings to commanders and staff, as requested.



Army Organization and Doctrine

Joint Weather Operations

JOINT AND COMBINED SUPPORT:

- The Army will not deploy to the battle independently. Force projection always involves at least a second service.
- Joint operations employ a mix of services, tailored to take advantage of each service's unique capabilities (ARFOR, AFFOR and other services).
- The joint METOC forecast unit (JMFU), when located within the JOA, may provide weather support to the different joint headquarters:
 - » Joint Land Force Component Commander (JFLCC)
 - » Joint Force Air Component Commander (JFACC)
 - » Joint Intelligence Center (JIC)
- Joint operations is described in the CINC's METOC Contingency Operations (CONOPS)



CFC METOC Organization

